

270 THE OPERATION OF LAND POWER PLANTS

Company, has proved to be the most efficient means for dealing with large quantities of ash. where the plant is required to operate continuously, the attention during operation being low and the upkeep and maintenance charges much the lowest of any method yet tried. This system has, up to the present, proved to be by far the best method of dealing with ashes.

Boiler Cleaning.—The best way of reducing expense in the cleaning of boilers is to see that the water used is suitable or is made suitable.

Of the old Lancashire type of boiler very little need be said. The chief

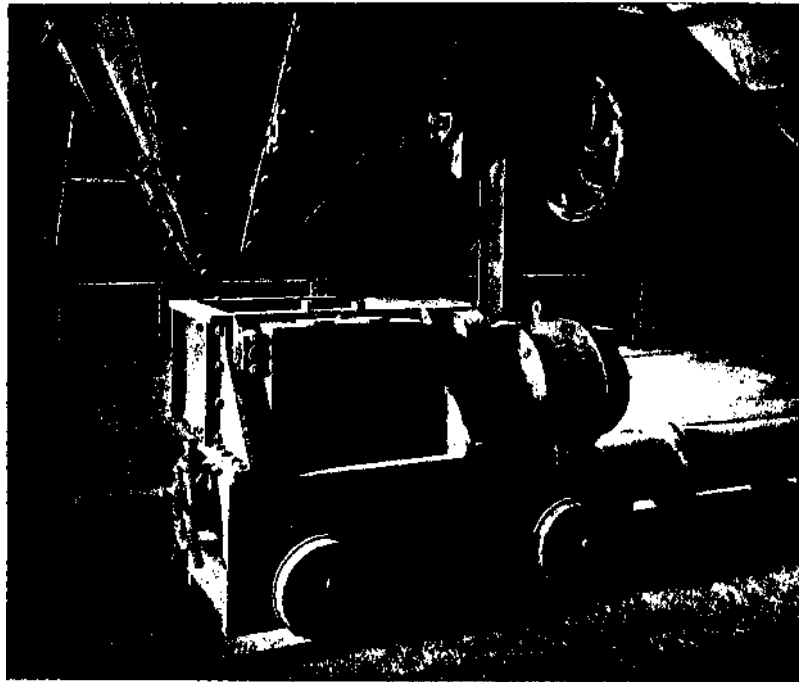


Fig. 7.—Babcock & Wilcox Patent Ash-conveying Plant. View in Ash Tunnel, showing Breaker and Ash Shoots

method adopted for cleaning these boilers is to chip the scale off the fire tubes with a scaling hammer, and finally to brush the tubes with a steel-wire brush. Since the fire tube expands and contracts more or less in service, the scale does not adhere very firmly, and so can be removed readily. Where the water-tube type of boiler is used, the expansion and contraction of the tube does not act on the scale so favourably. The scale is deposited inside the tubes, and as the boiler cools down, the scale is compressed into firmer contact with the metal of the tube.

It is physically impossible for any type of hand-scaling hammer to be

used, and so a specially constructed cleaner has to be used. There are two systems in regular use. One is operated by compressed air. A pneumatically operated piston drives a number of tiny chip hammers or cones which are attached to the end of a hose-pipe and worked up or down the tube